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ABSTRACT

The National Household Survey on Drug Abuse (NHSDA) has shown that the rate of marijuana use among youth has more than doubled since 1992. Similar trends are noted across all subgroups studied. At the same time, the percentage of teens perceiving a "great risk" from smoking marijuana has declined. Negative effects of marijuana use are listed. NHSDA methodology is presented and the possibility of underreporting of drug use by youths in their homes is noted. This study, a further analysis of the youth mental health self-report data, examines the characteristics of past year marijuana users age 12 to 17 in data from the 1994, 1995, and 1996 samples. Self-reported problem behaviors associated with marijuana use were withdrawal, somatic complaints, anxiety and depression, social problems, thought problems, attention problems, delinquent behavior, aggressive behavior, and criminal behavior. A user profile is presented. Generally, the more frequent the marijuana use behavior reported, the more likely the youths were to report problem behaviors. Eleven tables present frequency of use by age and selected demographic characteristics, and percentage and confidence intervals for each of the problem behaviors is reported. (EMK)

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Of the
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Adolescent Self-Reported Behaviors and Their Association with Marijuana Use

By Janet C. Greenblatt

Introduction

The National Household Survey on Drug Abuse (NHSDA), sponsored by the Substance Abuse and Mental Health Services Administration (SAMHSA), Department of Health and Human Services, has shown that since 1992, the rate of past month marijuana use among youth has more than doubled, going from 3.4 percent in 1992 to 7.1 percent in 1996. Similar trends are evident among both boys and girls; among whites, blacks and Hispanics; and in metropolitan and nonmetropolitan areas (SAMHSA 1997a). Other studies have also shown a doubling of marijuana use between 1992 and 1995 among 8th graders, and significant increases among 10th and 12th graders (NIDA 1997). At the same time, the rate of 12 to 17 year olds perceiving great risk in using marijuana has decreased. In the 1992 NHSDA, 39 percent of youths reported that smoking marijuana once a month is of great risk to people compared with 33 percent in 1996. Similarly, in 1992, 64 percent of youths reported smoking marijuana once or twice a week was of great risk to people compared with 57 percent in 1996 (SAMHSA 1997b).

While marijuana is considered by many a benign substance, the National Institute on Drug Abuse (NIDA) has reported that marijuana can be harmful both from immediate effects and damage to health over time. Specifically, studies have shown that marijuana can hinder the users' short term memory and ability to handle difficult tasks (Schwartz et al. 1989). Students may find it difficult to study and learn. While many of the long-term effects of marijuana use are not yet known, studies have shown that daily marijuana smokers who did not use tobacco had more sick days and doctor visits for respiratory problems than a similar group who did not smoke either substance. A person who smokes marijuana regularly may have many of the same respiratory problems that tobacco smokers have (Tashkin et al. 1987). Other studies have shown that the regular use of marijuana may play a role in cancer and problems of the respiratory, immune and reproductive systems . Heavy marijuana use can affect hormones in both males and females. Both animal and human studies have shown that marijuana impairs the ability of T-cells in the lungs' immune defense system to fight off some infections. Because of the drug's effects on perceptions and reaction time, users could be involved in automobile accidents (NIDA 1995). According to the 1996 NHSDA, nearly one million 16-18 year olds (11 percent) reported driving at least once within two hours of using an illicit drug in the past year (most often marijuana) (SAMHSA 1998).

Although it is not yet known how the use of marijuana relates to mental illness, some scientists maintain that regular marijuana use can lead to chronic anxiety, personality disturbances, and depression (NIDA 1995). Some frequent long-term marijuana users show signs of lack of motivation and tend to perform poorly in school (Pope 1996). A recent study demonstrated similarities between marijuana's effect on the brain and those produced by such addictive drugs as cocaine, heroin, alcohol, and nicotine (Volkow 1996).

There is substantial interest in the co-occurrence in the general population of illicit drug use with other kinds of behavioral patterns, mental syndromes, and psychiatric disorders (Bourden et al. 1992, Kandel et al. 1997, Kesseler et al. 1996, SAMHSA 1996). A number of descriptive studies have demonstrated that people who use drugs are more likely to have mental disorders, physical health problems, and family problems (NIDA 1991). In addition, a recent study (Crowley 1998) was conducted with 165 boys and 64 girls between the ages of 13 and 19 who had been referred by social service or criminal justice agencies to a university-based treatment program for delinquent substance-involved adolescents. Based on interviews, medical examinations, social history, and psychological evaluations, the study showed that marijuana use by teenagers who have prior serious antisocial problems can quickly lead to dependence on the drug. Most of the youths reported that their behavioral problems predated, and were not initially caused by, their drug use.

The 1994, 1995, and 1996 NHSDA incorporated the widely used Youth Self-Report (YSR) Checklist which ranks adolescents on a variety of clinically validated scales of behavioral and emotional problem behaviors (Achenbach 1991). In this paper, the relationship between marijuana use among those age 12-17 and various problem measures, as reported on the YSR, is shown. This paper concentrates primarily on the reported frequency of marijuana use and its relationship with self-reported behaviors.

Methods

The NHSDA, currently conducted by SAMHSA, has provided estimates of the prevalence, consequences, and patterns of drug use and abuse in the United States periodically since 1971. It is the primary source of statistical information on the use of illegal drugs by the United States population age 12 and older. The survey collects data by administering questionnaires to a representative sample of persons living in the U.S. (SAMHSA, 1998).

The respondent universe includes residents of noninstitutional group quarters such as shelters, rooming houses, dormitories and residents of civilian housing on military bases. Persons excluded from the universe include the homeless not found in shelters, residents of institutional quarters, such as jails and hospitals, and active military personnel. The survey employs a multistage area probability sample design that includes over-sampling of young people, African-Americans, and Hispanics. In 1993, 1994, and 1995, cigarette smokers age 18-34 were also over-sampled.

The household interview takes about an hour to complete, and includes a combination of interviewer-administered and self-administered questions. With this procedure, the answers to sensitive questions (such as those on illicit drug use) are recorded on separate answer sheets by the respondent and are not seen by the interviewer. After the answer sheets are completed, they are placed by the respondent in an envelope, which is sealed and mailed with no name or address information included.

A concern of NHSDA data users is that the data are based on self-reports of drug use, and their value depends on respondents' truthfulness and memory. Although many studies have generally established the validity of self-report data and the NHSDA procedures were designed to

encourage honesty and recall, some underreporting may have taken place (Harrell 1986). The methodology used in the NHSDA has been shown to produce more valid results than other self-report methods such as interviews by telephone (Turner et al. 1992). However, comparisons of NHSDA data with data from surveys conducted in classrooms suggest that underreporting of drug use by youths in their homes may be substantial (Gfroerer 1997).

For this study, data from the 1994, 1995, and 1996 NHSDA datasets were combined, dividing the analytic weights by 3 to produce average annual yearly estimates for the combined dataset. Questionnaires and data collection and estimation methodologies were essentially the same in those three years. The household screening completion rate for the 1994-6 surveys was 94 percent. This study is restricted to those age 12-17. In 1994, 83 percent of sample persons age 12-17 completed the interview resulting in a sample size of 4,698. The 1995 NHSDA achieved a response rate of 85 percent for the 4,595 respondents age 12-17; the 1996 response rate was 82 percent for a sample size of 4,538. Three-fourths of the interviews (in the combined dataset) among those age 12-17 were completed in complete privacy or with minor distractions.

In 1994, SAMHSA began collecting mental health data on the NHSDA. A youth mental health module for the age group 12-17 was adopted from work by Thomas M. Achenbach and colleagues (1991a) to obtain youths' reports of their competencies and problems in a standardized format. The module was designed to measure depression, anxiety, social withdrawal, somatic complains, social problems, thought problems, attention problems, delinquent behavior, and aggressive behavior during the past 6 months. Psycho-social problem behaviors in the past 6 months were measured using a module composed of 118 items from the Youth Self-Report (YSR) which has been used extensively in studies of adolescents. Scores that sum up responses to the YSR have been shown to distinguish adolescents typically seen in clinical settings for counseling or psychotherapy from those seldom referred for treatment, in other words, to identify individuals who are likely to have clinically significant levels of functional, cognitive, or emotional problems. For this study, the responses to each of the 118 items were analyzed separately.

Results

Characteristics of Past Year Marijuana Users Age 12-17

Youths were asked how often in the past 12 months they used marijuana (Table 1). The majority of 12, 13, and 14 year olds (64%, 59%, and 52%, respectively) who used marijuana used less often than monthly (1-11 days in the past year) compared with 47% of 15 year olds and 39% of 16-17 year olds. More than 27 percent of users age 16 to 17 used marijuana 1 to 7 days a week in the past year compared with 12 percent of 12 year old users and 21-24 percent of 13-15 year old users.

Table 2 shows the demographic characteristics of marijuana users by frequency of use. The teenagers using monthly or more often were more likely to be older (age 16 to 17). The monthly or more often users were also more likely to be male than those who used less frequently. Those who used monthly or more often were more likely than less frequent users to live in the West and to have moved 2 or more times in the past year. The weekly users were 1.7 times more likely

than nonusers to be living in other than a 2-parent family (55% and 33% respectively). As the frequency of use increased, the percent of 12-17 year olds living in a 2-parent family decreased.

Self-reported Problem Behaviors Associated With Marijuana Use

In completing the YSR, youths were asked to read the list of 118 statements and indicate if the statement was not true, somewhat or sometimes true, or very or often true for them. Although causal conclusions about the relationship between substance use and problems cannot be drawn from the NHSDA data alone, these data provide a useful complement to other studies. While the reported behaviors are not necessarily caused by the use of marijuana or, conversely, the cause of marijuana use, there appears to be a strong positive correlation between the reporting of certain behaviors and reported frequency of marijuana use. The more frequent the use, the more likely the 12-17 year olds were to report problem behaviors.

Withdrawal:

There were 7 measures that comprised the withdrawal category (Table 3). There was a strong correlation between the reporting of withdrawal items and the frequency of reported marijuana use. Those who used marijuana on 1-7 days a week in the past year were nearly twice as likely as non-users to report they refuse to talk (25% vs. 16%), they don't have much energy (47% vs. 25%), and they are unhappy, sad or depressed (40% vs. 23%). Those who used marijuana at least monthly in the past year reported being more likely than nonusers to say they were secretive or kept things to themselves.

Somatic Complaints:

Those age 12 to 17 who used marijuana in the past year were more likely than nonusers to report feeling dizzy, overtired, and nauseous or sick (Table 4). There appeared to be little correlation between frequency of marijuana use and certain reported somatic complaints with the more frequent users being as likely as less frequent users to report symptoms such as having headaches, rashes or other skin problems.

Anxiety/Depression:

As seen in Table 5, those who used marijuana at least once a month in the past year were nearly 3 times as likely as nonusers to say they think about killing themselves (24% vs. 8%). Those who used marijuana in the past year were more likely than nonusers to report that they deliberately try to hurt or kill themselves, feel lonely and that no one loves them, that other people are out to get them, and

they are worthless and inferior. For some items, as the frequency of use increased, the percent of adolescents reporting these feelings also increased. For example, weekly users were more likely than less frequent users to feel "others are out to get me", "I am worthless or inferior" or "I am unhappy or sad".

Social Problems:

Those who used marijuana in the past year were more likely than nonusers to report that they do not get along with other kids and weekly users were nearly twice as likely as nonusers to report this (33% vs 19%) (see Table 6). The weekly users were *less* likely than nonusers to report they act too young for their age (27% vs. 36%), they prefer younger kids as friends (15% vs. 22%), and they get teased a lot (17% vs. 25%). However, weekly users were *more* likely than nonusers to say they are not liked by other kids (25% vs. 18%).

Thought Problems:

Past year marijuana users age 12 to 17 were more likely than nonusers to report four thought problems: "I can not get my mind off certain thoughts", "I repeat certain actions over and over", "I do things other people think are strange", and "I have thoughts people would think are strange" (Table 7). In addition, monthly or more often users were more likely than nonusers to say they see and hear things that other people think are not there.

Attention Problems:

Those who used marijuana in the past year were more likely than nonusers to report they have trouble concentrating (72% vs. 51%), they feel confused or in a fog (41% vs. 24%), they daydream a lot (68% vs. 52%), they act without stopping to think (63% vs. 44%), and their school work is poor (59% vs. 30%) (see Table 8). As before, the percent of those reporting attention problems generally increased with frequency of use.

Delinquent Behavior:

Differences of the greatest magnitude between users and nonusers were found in measures of delinquent behavior (Table 9). Those who used marijuana weekly were 9 times as likely as nonusers to say they use alcohol or drugs for nonmedical purposes (76% vs. 8%), 6 times as likely to say they had run away from home (24% vs. 4%), nearly 6 times as likely to say they had cut classes or skipped school (60% vs. 11%), 5 times as likely to say they stole from places other than home (34% vs. 6%), and 3 times as likely to say they steal at home (17% vs. 5%). Moreover, a higher proportion of past year marijuana users reported these behaviors than did nonusers. Past year users were also more likely than nonusers to report they do not feel guilty after doing something they shouldn't, they hang around with kids who get into trouble, and they lie and cheat. As noted elsewhere, the proportion saying these statements were somewhat, very or often true about them generally increased with frequency of marijuana use. For example, weekly marijuana users were about twice as likely as those who used fewer than 12 times in the

past year to say they had run away from home or they had cut classes or skipped school in the past 6 months.

Aggressive Behavior:

Past year marijuana users were more likely than nonusers to report all aggressive behaviors shown in Table 10. For many items, the percentage reporting the behavior increased as frequency of use increased. Weekly users were nearly 4 times as likely as nonusers to report they physically attack people (26% vs. 7%), and 3 times as likely to report they destroy things that belong to others (22% vs. 7%), they threaten to hurt people (38% vs. 13%), and they get in many fights (37% vs. 14%). The weekly users were also twice as likely as nonusers to report they disobey at school (59% vs. 24%) and they destroy their own things (22% vs. 10%). On average, past year marijuana users, regardless of frequency of use, were twice as likely as nonusers to report they destroy things that belong to others, they disobey at school, they get in many fights, and they threaten to hurt people.

Criminal Behavior:

In addition to the YSR module, the NHSDA included questions about some past-year activities that may have been illegal. In each comparison shown in table 11, adolescents age 12 to 17 who used marijuana in the past year were 3 or more times more likely than nonusers to report past-year involvement in these activities. Past year marijuana users were more likely than nonusers to report that in the past year, they were on probation, and they had 1) taken something from a store without paying, 2) purposely damaged property that wasn't theirs, 3) driven under the influence of alcohol or drugs, 4) hurt someone enough to need a bandage, and 5) sold illegal drugs. As before, in most cases, the percentage reporting these behavioral problems increased with the frequency of marijuana use. In particular, weekly users of marijuana were more than 5 times as likely as those who used only 1 to 11 times in the past year to have driven under the influence of drugs (29% vs. 4%) or to have sold illegal drugs in the past year (29% vs. 6%). Weekly users were also 2-3 times more likely than those who used less often than monthly to be on probation (20% vs. 7%), to have driven under the influence of alcohol (20% vs. 9%), or to have purposely damaged property that was not theirs (35% vs. 18%).

Conclusion

This report shows that among those age 12-17, past year marijuana users were more likely than nonusers to report problem behaviors in the past 6 months. Further, for the majority of items measured, the more frequent the use, the more likely the youths were to report problem behaviors.

The more frequent users were more likely to be the older youths (6 out of 10 were age 16-17), white, male, to live in a metropolitan area and the West. They were more likely than less frequent users to have moved in the past year and are less likely to live in a 2-parent family. Frequent marijuana users were more likely than less frequent users to report delinquent behaviors such as running away from home, stealing, and cutting classes or skipping school. They were also more

likely than less frequent users to report aggressive behaviors such as destroying things that belong to others and physically attacking people. Monthly or more often users were more likely than less frequent users to have driven under the influence of alcohol or drugs or sold illegal drugs in the past year. From a psychological view, youths who used marijuana in the past year reported many behaviors symptomatic of anxiety and depression. Users were 2 to 4 times more likely than nonusers to report they think about killing themselves or that they deliberately try to hurt or kill themselves. They were more likely than nonusers to say they were unhappy, sad or depressed and that they feel "no one loves me". The users were more likely than nonusers to report that "others are out to get me" and "I am suspicious".

Regardless of whether the problem behaviors preceded marijuana use or marijuana use preceded the behaviors (which we are not able to ascertain from the NHSDA), it is apparent from these data that the marijuana users are exhibiting many signs of anxiety and depression and exhibiting delinquent and aggressive behaviors far in excess of the nonusers. Further, there appears to be a high correlation between the presence of many of these reported behaviors and the frequency of marijuana use.

These findings strengthen the argument that marijuana is not a benign substance. Not only can it be associated with many destructive and aggressive behaviors, it can also be associated with severe symptoms of anxiety and depression. Longitudinal studies are needed to determine if the symptoms and behaviors preceded the marijuana use or visa versa. Whether this can be determined or not, this report shows the importance of preventing the use of marijuana in youths and the need for treatment for marijuana use in conjunction with treatment for comorbid mental disorders.

References

1) Substance Abuse and Mental Health Services Administration (1997a). Drug Abuse Series: H-3. *Preliminary Estimates from the 1996 National Household Survey on Drug Abuse*. Office of Applied Studies, July 1997.

2) National Institute on Drug Abuse (1997). Press Release for the Monitoring the Future Study, The University of Michigan Institute for Social Research, December 1997.

3) Substance Abuse and Mental Health Services Administration (1997b). *1996 National Household Survey on Drug Abuse: Preliminary Tables* (Unpublished). Office of Applied Studies, June 1997.

4) Schwartz, R.H., Gruenewald, P.J., Klitzner, M., and Fedio, P. (1989) *Short-term memory impairment in cannabis-dependent adolescents.* American J. of Diseases of the Child 1989; 143:1214-1219.

5) Tashkin, D.P., Coulson, A.H., Clark, V.A., et al. *Respiratory system and lung function in habitual, heavy smokers of marijuana alone, smokers of marijuana and tobacco, smokers of tobacco alone, and nonsmokers.* Am Rev Respir Dis 1987; 135:209-216.

6) National Institute on Drug Abuse (1995) *Marijuana: Facts Parents Should know*. Booklet NCADI #PHD712, GPO#017-024-01570-0.

7) Substance Abuse and Mental Health Services Administration (1998). Drug Abuse Series: H-5. *National Household Survey on Drug Abuse Main Findings 1996*, Office of Applied Studies, May 1998.

8) Pope, HG Jr, Yurgelun-Todd,D. *The residual cognitive effects of heavy marijuana use in college students.* JAMA 1996 Feb 21; 275(7): 521-7.

9) Volkow, N.D., Ding, Y.-S., Fowler, J.S., & Wang, G.-J. 1996. *Cocaine Addiction: Hypothesis Derived from Imaging Studies with PET.* J. Addictive Diseases, 1996.

10) Bourden, H., Rae, D., Narrow, W., Manderscheid, R., and Regier, D., *National Prevalence and Treatment of Mental and Addictive Disorders, Mental Health, United States*, Center for Mental Health Services, DHHS Pub. No. (SMA)92-1942 (1992).

11) Kandel, D.B., Johnson, J.G., Bird, H.R., Canino, G., Goodman, S.H., Lahey, B.B., Regier, D.A., and Schwab-Stone, M. *Psychiatric Disorders Associated with Substance Use Among Children and Adolescents: Findings from the Methods for the Epidemiology of Child and Adolescent Mental Disorders (MECA) Study.* Journal of Abnormal Child Psychology 1997, 25(2), pp. 121-132.

12) Kessler, R.C., Nelson, C.B., McGongle, K.A., Edlund, M.J., Frank, R.G., and Leaf, P.J., *The Epidemiology of Co-occurring Addictive and Mental Disorders in the National Comorbidity Survey: Implications for Prevention and Service Utilization.* American Journal of Orthopsychiatry 66:17-31 (1996).

13) Substance Abuse and Mental Health Services Administration (1996). *Advance Report 15. Mental Health Estimates from the 1994 National Household Survey on Drug Abuse.* Office of Applied Studies, July 1996.

14) Crowley, T (1998). *Troubled Teens Risk Rapid Dependence on Marijuana.* Drug and Alcohol Dependence 50:1.

15) Achenbach, T.M., (1991) Manual for the youth Self-Report and 1991 profile. Burlington, VT: University of Vermont Department of Psychiatry.

16) Harrell, A.V., Kapsak, K.A., Cisin, I.H., and Wirtz, P.W. (1986). *The Validity of Self-Reported Drug Use Data: The Accuracy of Responses on Confidential Self-Administered Answer Sheets.* Prepared for the National Institute on Drug Abuse, Contract Number 271-85-8305.

17) Turner, C.F., Lessler, J.T., and Gfroerer, J.C. (1992). Survey Measurement of Drug Use: Methodological Studies. National Institute on Drug Abuse. DHHS Pub. No. (ADM) 92-1929.

18) Gfroerer, J.C. (1997). *Prevalence of youth substance use: the impact of methodological differences between two national surveys.* Drug and Alcohol Dependence 47 (1997) 19-30.

Table 1: Percentage Distribution of Past Year Reporting Frequency of Marijuana Use Among Past Year Users by Age, 1994-96

Frequency of Use	Age in Years					
	12	13	14	15	16	17
1-7 Days Week	12.2%	23.6%	20.4%	21.3%	27.2%	28.6%
1-4 Days Month	24.0	16.9	27.2	32.1	34.1	32.8
1-11 Days in Past Year	63.7	59.4	52.4	46.7	38.7	38.6
Total	100.0	100.0	100.0	100.0	100.0	100.0

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse

Table 2: Frequency Distribution of Past Year Marijuana Users Age 12-17 by Frequency of Use and Selected Demographic Characteristics: 1994-6

	Used Weekly	Used Monthly	Used Yearly	Did not Use
	100.0%	100.0%	100.0%	100.0%
Age				
12-13	7.0	5.2	11.7	36.6
14-15	29.6	34.2	38.8	34.9
16-17	63.4	60.6	49.5	28.5
Race				
White	68.5	73.5	71.0	67.8
Black	13.9	11.6	13.7	14.6
Hispanic	13.9	12.6	12.0	12.6
Other	3.7	2.3	3.4	5.0
Gender				
Male	60.9	53.1	48.9	50.9
Female	39.1	46.9	51.1	49.1
Population Density				
Metro Area 1 M +	42.7	41.9	37.7	41.2
Metro Area < 1 M	36.3	38.2	40.0	33.9
Non Metro Area	21.0	19.9	22.3	24.9

Table 2 continued:

	Used Weekly	Used Monthly	Used Yearly	Did not Use
	100.0%	100.0%	100.0%	100.0%
Region				
Northeast	15.8	17.1	16.8	17.4
North Central	25.2	26.1	27.7	25.5
South	31.9	28.0	32.3	34.9
West	27.1	28.9	23.2	22.2
Family Income				
$0-$8,999	10.0	6.5	9.5	7.1
$9-19,999	17.2	16.3	17.3	17.0
$20-39,999	34.1	28.3	27.5	30.2
$40-74,999	27.1	34.1	35.1	32.7
$75,000+	11.2	14.9	10.6	13.0
Moves in past year				
None	68.0	73.6	76.4	83.3
1	24.3	20.6	19.2	15.6
2 or more	17.7	5.8	4.4	1.1
Family Structure				
2-parent	45.3	53.8	55.8	67.3
Other	54.7	46.2	44.2	32.7

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse

Table 3: Percentage and 95% confidence interval for adolescents age 12-17 reporting withdrawal complaints in the past 6 months by frequency of marijuana use, 1994-6

WITHDRAWAL COMPLAINTS	Frequency of Marijuana Use in Past Year Percent saying "Somewhat true or very or often true"			
	1-7 Days/Week	1-4 days/month	1-11 days past year	No use past year
Would rather be alone than with others	40.5 (33.3-48.2)	35.1 (20.5-41.1)	37.6 (32.4-43.1)	30.1 (28.8-31.5)
I refuse to talk	25.3 (19.4-32.3)	20.4 (15.7-26.0)	20.3 (16.4-24.9)	16.2 (15.0-17.4)
I am secretive or keep things to myself	64.7 (57.3-71.5)	60.2 (53.9-66.3)	53.4 (47.6-59.1)	48.6 (47.3-50.0)
I am shy	45.3 (39.0-51.7)	40.6 (34.0-47.5)	43.4 (38.2-48.7)	50.0 (48.6-51.4)
I don't have much energy	47.0 (40.5-53.6)	34.9 (29.3-41.0)	29.7 (25.0-34.9)	24.5 (23.4-25.7)
I keep from getting involved with others	42.3 (35.5-49.4)	39.5 (33.3-46.0)	40.3 (34.9-45.9)	37.7 (36.4-39.1)
I am unhappy, sad, or depressed	40.3 (33.1-47.9)	39.3 (33.4-45.5)	35.8 (31.1-40.8)	22.6 (21.5-23.6)

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse.

Table 4: Percentage and 95% confidence interval for adolescents age 12-17 reporting somatic complaints in the past 6 months by frequency of marijuana use, 1994-6

SOMATIC COMPLAINTS	Frequency of Marijuana Use in Past Year Percent saying "Somewhat true or very or often true"			
	1-7 Days/Week	1-4 days/month	1-11 days past year	No use past year
I feel dizzy	28.3 (23.7-33.4)	25.0 (20.9-29.7)	24.6 (21.1-28.5)	15.5 (14.7-16.4)
I feel overtired	44.9 (39.4-50.6)	47.2 (42.3-52.2)	47.3 (43.0-51.6)	34.7 (33.6-35.8)
I have aches and pains	36.6 (31.2-42.4)	35.6 (30.7-40.7)	37.8 (33.9-41.9)	28.8 (27.8-29.8)
I have headaches	48.6 (42.6-54.7)	53.4 (48.4-58.3)	57.7 (53.4-62.0)	48.9 (47.7-50.1)
I feel nausea or sick	29.1 (24.2-34.6)	33.0 (28.2-38.1)	34.2 (30.3-38.3)	23.1 (22.2-24.1)
I have problems with my eyes	29.3 (24.5-34.6)	31.2 (26.6-36.1)	33.9 (29.7-38.4)	23.7 (22.8-24.6)
I have rashes or other skin problems	14.4 (11.1-18.5)	18.0 (14.4-22.3)	18.6 (15.1-22.7)	14.0 (13.3-14.8)
I have stomach aches or cramps	36.1 (31.1-41.3)	37.4 (32.7-42.4)	42.8 (38.5-47.2)	34.5 (33.4-35.6)
I have trouble with vomiting/throwing up	13.9 (10.7-17.9)	14.4 (11.0-18.6)	13.3 (10.4-16.9)	10.2 (9.6-10.9)

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse.

Table 5: Percentage and 95% confidence interval for adolescents age 12-17 reporting anxiety and depression in the past 6 months by frequency of marijuana use, 1994-6

ANXIETY/DEPRESSION	Frequency of Marijuana Use in Past Year Percent saying "Somewhat true or very or often true"			
	1-7 Days/Week	1-4 days/month	1-11 days past year	No use past year
I feel lonely	46.8 (41.2-52.4)	48.0 (42.8-53.2)	45.6 (40.9-50.4)	2.4 (31.2-33.7)
I cry a lot	25.8 (21.1-31.2)	33.8 (29.9-38.8)	29.3 (25.5-33.5)	22.2 (21.2-23.1)
I deliberately try to hurt or kill myself.	18.1 (14.1-22.9)	9.5 (7.1-12.5)	12.8 (10.1-16.2)	4.8 (4.3-5.3)
I am afraid I might think/do something bad.	23.7 (19.7-28.4)	21.6 (17.8-25.8)	24.2 (20.5-28.4)	23.0 (22.0-24.0)
I feel that I have to be perfect.	26.8 (21.9-32.2)	29.6 (25.2-34.4)	32.8 (28.8-37.0)	32.8 (31.6-34.0)
I feel that no one loves me.	25.0 (20.0-30.7)	22.6 (18.6-27.2)	21.2 (17.7-25.2)	12.9 (12.1-13.6)
I feel that others are out to get me.	32.1 (26.7-37.9)	22.9 (18.7-27.7)	23.7 (20.3-27.6)	13.8 (13.0-14.6)
I feel worthless or inferior.	22.4 (18.0-27.6)	20.2 (16.2-24.9)	16.5 (13.5-20.0)	10.9 (10.1-11.7)
I am nervous or tense.	44.0 (38.1-50.1)	49.9 (44.9-54.8)	45.4 (40.8-50.0)	39.9 (38.8-41.0)
I am too fearful or anxious.	20.5 (16.4-25.3)	24.0 (20.3-28.2)	27.1 (23.2-31.4)	20.8 (19.9-21.7)
I feel too guilty.	19.0 (15.0-23.7)	19.5 (16.0-23.6)	21.9 (17.9-26.5)	14.1 (13.3-14.9)
I am self-conscious/easily embarrassed.	42.5 (37.2-48.0)	46.6 (41.6-51.5)	46.1 (41.4-50.8)	41.7 (40.6-42.9)
I am suspicious.	58.3 (52.7-63.7)	51.6 (46.6-56.5)	52.7 (48.3-57.1)	43.5 (42.3-44.7)
I think about killing myself.	24.4 (19.7-29.8)	23.3 (19.0-28.3)	19.5 (16.1-23.4)	8.4 (7.8-9.1)
I feel unhappy or sad.	38.6 (33.3-44.1)	36.2 (31.6-41.1)	35.3 (31.3-39.5)	22.5 (21.5-23.4)
I worry a lot.	47.9 (42.7-53.1)	48.2 (43.4-53.1)	55.8 (51.7-59.8)	43.1 (42.0-44.2)

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse.

Table 6: Percentage and 95% confidence interval for adolescents age 12-17 reporting social problems in the past 6 months by frequency of marijuana use, 1994-6

SOCIAL PROBLEMS	Frequency of Marijuana Use in Past Year Percent saying "Somewhat true or very or often true"			
	1-7 Days/Week	1-4 days/month	1-11 days past year	No use past year
I act too young for my age.	27.1 (22.0-32.8)	31.5 (26.8-36.7)	31.9 (28.0-36.0)	36.4 (35.3-37.6)
I am too dependent on adults.	32.1 (26.8-37.9)	33.4 (28.6-37.9)	31.1 (27.1-35.4)	34.2 (33.1-35.3)
I don't get along with other kids.	33.2 (28.4-38.5)	25.4 (21.2-30.1)	27.3 (23.4-31.7)	18.6 (17.7-19.5)
I get teased a lot.	17.2 (13.2-22.0)	15.9 (12.7-19.9)	25.1 (21.3-29.4)	24.5 (23.4-25.7)
I am not liked by other kids.	25.4 (21.0-30.4)	17.2 (13.8-21.2)	22.0 (18.7-25.8)	17.9 (16.9-18.9)
I am poorly coordinated or clumsy.	26.9 (21.9-32.5)	25.5 (21.1-30.6)	23.1 (19.2-27.7)	19.5 (18.6-20.5)
I prefer younger kids as friends.	15.1 (11.6-19.4)	15.5 (12.2-19.6)	20.8 (16.9-25.3)	22.4 (21.5-23.3)

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse.

Table 7: Percentage and 95% confidence interval for adolescents age 12-17 reporting thought problems in the past 6 months by frequency of marijuana use, 1994-6

THOUGHT PROBLEMS	Frequency of Marijuana Use in Past Year Percent saying "Somewhat true or very or often true"			
	1-7 Days/Week	1-4 days/month	1-11 days past year	No use past year
I can't get my mind off certain thoughts.	78.1 (72.6-82.6)	80.5 (75.9-84.4)	77.1 (73.4-80.4)	64.2 (63.0-65.3)
I hear things that others don't hear.	20.0 (16.0-24.8)	17.0 (13.5-21.3)	14.0 (11.3-17.2)	9.5 (8.9-10.2)
I repeat certain actions over and over.	37.9 (32.5-43.6)	36.2 (31.2-41.6)	34.1 (30.4-38.1)	25.5 (24.6-26.5)
I see things other people think are not there.	16.3 (12.3-21.2)	12.7 (9.7-16.4)	10.9 (8.5-14.0)	8.5 (7.9-9.1)
I store up things I don't need.	38.5 (32.8-44.5)	44.3 (39.7-49.1)	48.6 (43.8-53.4)	45.0 (43.9-46.0)
I do things other people think are strange.	53.4 (47.9-58.7)	51.7 (46.7-56.6)	53.8 (49.5-58.1)	39.2 (38.0-40.4)
I have thoughts people would think are strange.	53.2 (47.5-58.7)	49.8 (44.6-55.0)	48.6 (43.8-53.4)	33.7 (32.6-34.9)

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse.

Table 8: Percentage and 95% confidence interval for adolescents age 12-17 reporting attention problems in the past 6 months by frequency of marijuana use, 1994-6

ATTENTION PROBLEMS	Frequency of Marijuana Use in Past Year Percent saying "Somewhat true or very or often true"			
	1-7 Days/Week	1-4 days/month	1-11 days past year	No use past year
I act young for my age.	25.0 (19.1-32.1)	29.7 (24.5-35.4)	31.7 (26.9-36.9)	35.3 (34.0-36.7)
I have trouble concentrating.	71.7 (64.5-78.0)	69.0 (62.6-74.8)	63.9 (58.2-69.2)	50.8 (49.4-52.2)
I feel confused or in a fog.	41.0 (34.6-47.7)	40.0 (34.3-46.0)	37.3 (32.1-42.8)	23.5 (22.2-24.9)
I daydream a lot.	67.5 (60.6-73.6)	64.3 (58.9-69.4)	64.0 (58.5-69.1)	52.1 (50.7-53.5)
I act without stopping to think.	63.0 (55.7-69.8)	60.3 (53.7-66.6)	56.5 (51.5-61.3)	43.7 (42.3-45.1)
I am nervous or tense.	45.9 (38.3-53.7)	48.9 (42.8-54.9)	44.1 (38.4-50.1)	40.6 (39.2-42.0)
My school work is poor.	58.5 (50.5-66.1)	45.7 (39.1-52.4)	45.1 (39.6-50.7)	29.8 (28.4-31.1)

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse.

Table 9: Percentage and 95% confidence interval for adolescents age 12-17 reporting delinquent behavior in the past 6 months by frequency of marijuana use, 1994-6

DELINQUENT BEHAVIOR	Frequency of Marijuana Use in Past Year Percent saying "Somewhat true or very or often true"			
	1-7 Days/Week	1-4 days/month	1-11 days past year	No use past year
I don't feel guilty after doing something I shouldn't.	57.7 (52.0-63.1)	48.7 (44.0-53.4)	44.4 (39.8-49.1)	32.4 (31.3-33.6
I hang around with kids who get in trouble.	68.1 (62.9-72.9)	67.5 (62.8-71.8)	57.2 (52.3-61.9)	32.7 (31.6-33.7)
I lie or cheat.	46.6 (39.9-53.5)	45.2 (40.1-50.4)	40.1 (35.6-44.9)	25.9 (24.9-27.0)
I prefer to be with older kids.	69.5 (64.2-74.4)	68.2 (63.2-72.8)	67.3 (62.7-71.7)	49.7 (48.6-50.9)
I run away from home.	23.9 (19.5-28.9)	15.6 (12.3-19.6)	11.4 (8.9-14.6)	3.5 (3.1-4.0)
I set fires.	17.1 (13.0-22.2)	10.7 (7.9-14.2)	10.2 (7.6-13.6)	5.7 (5.2-6.3)
I steal at home.	16.8 (12.6-22.1)	9.5 (6.9-13.0)	11.1 (8.5-14.5)	4.8 (4.3-5.3)
I steal from places other than home.	33.5 (28.2-39.2)	25.9 (21.5-30.7)	20.8 (17.3-24.9)	6.1 (5.5-6.7)
I cut classes or skip school.	60.2 (54.5-65.6)	50.0 (44.9-55.1)	38.6 (34.4-43.0)	10.7 (10.1-11.3)
I use alcohol or drugs for non-medical purposes.	76.4 (71.5-80.7)	66.5 (61.4-71.2)	48.5 (44.0-53.1)	8.3 (7.7-8.9)
I swear or use dirty language.	92.2 (89.1-94.5)	90.4 (87.4-92.7)	89.1 (86.0-91.6)	55.9 (54.6-57.2)

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse.

Table 10: Percentage and 95% confidence interval for adolescents age 12-17 reporting aggressive behavior in the past 6 months by frequency of marijuana use, 1994-6

AGGRESSIVE BEHAVIOR	Frequency of Marijuana Use in Past Year Percent saying "Somewhat true or very or often true"			
	1-7 Days/Week	1-4 days/month	1-11 days past year	No use past year
I am mean to others.	45.8 (40.5-51.2)	48.5 (43.3-53.8)	41.8 (37.6-46.2)	30.1 (29.1-31.1)
I destroy my own things.	21.6 (17.1-26.9)	17.2 (13.9-21.0)	17.7 (14.4-21.6)	10.0 (9.3-10.7)
I destroy things belonging to others.	22.3 (17.8-27.6)	15.4 (12.4-19.0)	13.3 (10.5-16.9)	6.9 (6.3-7.5)
I disobey at school.	58.7 (53.7-63.6)	58.0 (52.6-63.2)	50.1 (46.1-54.2)	24.0 (23.1-24.9)
I get in many fights.	37.1 (31.4-43.2)	25.4 (21.3-30.0)	27.5 (23.5-31.9)	13.5 (12.7-14.3)
I physically attack people.	25.9 (21.2-31.1)	17.6 (13.7-22.2)	13.9 (11.0-17.4)	6.8 (6.3-7.4)
I scream a lot.	27.2 (22.5-32.4)	25.8 (21.5-30.6)	28.4 (24.9-32.2)	16.9 (16.0-17.8)
I am stubborn.	67.8 (62.0-73.0)	69.2 (64.5-73.6)	68.6 (64.3-72.7)	51.4 (50.2-52.5)
My moods or feelings change suddenly.	62.2 (57.0-67.0)	62.5 (57.3-67.5)	64.1 (59.5-68.4)	44.9 (43.8-46.0)
I tease others a lot.	43.6 (37.9-49.4)	47.2 (42.0-52.4)	46.4 (41.9-51.1)	33.0 (32.0-34.0)
I have a hot temper.	63.7 (57.7-69.3)	66.0 (60.7-70.9)	66.7 (62.7-70.5)	44.4 (43.2-45.7)
I threaten to hurt people.	37.6 (31.9-43.7)	28.9 (24.3-33.9)	29.5 (25.8-33.5)	13.0 (12.3-13.7)

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse.

Table 11: Percentage and 95% confidence interval for adolescents age 12-17 reporting criminal behavior in the past year by frequency of marijuana use, 1994-6

PAST YEAR CRIMINAL BEHAVIOR	Frequency of Marijuana Use in Past Year			
	1-7 Days/Week	1-4 days/month	1-11 days past year	No use past year
On Probation [1]	20.3 (15.7-25.8)	9.2 (6.3-13.4)	7.2 (4.6-11.0)	1.3 (1.1-1.6)
Taken something from a store without paying [2]	43.9 (35.2-52.9)	35.6 (28.2-43.8)	29.0 (22.7-36.3)	6.5 (5.5-7.7)
Purposely damaged property that wasn't yours [2]	35.1 (26.4-45.0)	29.5 (23.3-36.5)	18.0 (13.4-23.7)	5.8 (5.0-6.7)
Driven under the influence of alcohol [1]	20.4 (15.4-26.4)	15.3 (11.2-20.5)	9.4 (6.7-13.2)	1.0 (0.7-1.4)
Driven under the influence of drugs [2]	28.9 (22.7-36.1)	17.9 (13.3-23.8)	3.6 (1.8-6.8)	0.1 (0.1-0.3)
Sold illegal drugs [3]	29.4 (22.3-37.6)	19.1 (13.1-27.0)	5.7 (3.0-10.5)	0.3 (0.1-0.5)

1 1995 and 1996 only.
2 1994 and 1995 only.
3 1995 only.

Source: Office of Applied Studies, SAMHSA, National Household Survey on Drug Abuse.